

Module Handbook

Module Name	Health and Safety					
Module Level	Higher Diploma					
Code, if applicable	VKD107					
The subtitle, if applicable	-					
Courses, if applicable	-					
Semester(s) in which the module is taught	1 st semester					
Person responsible for the module	Yuli Rohyami, M.Sc.					
Lecturer	Yuli Rohyami, M.Sc. Kuntari, M.Sc.					
Language	Bahasa Indonesia					
Relation to curriculum	Compulsory					
Type of teaching, contact hours	Flipped classroom-cooperative learning: (1) independent study: flipped classroom: google classroom; (2) face to face: cooperative learning; (3) structure activities: cooperative learning; (4) exam: 5.6 hours x 8 weeks per semester Practical class: health and safety documents drafting/videos or posters creating and exam : 5.8 hours x 8 weeks per semester					
Workload	Total Workload			91 hours; 2 CU		
		Independent study: flipped classroom	Face to face: cooperative learning	Structure activities: cooperative learning	Practical class	Exam
	Hours	12	14	14	40	11
Credit Points	2 CU/3.4 ECTS					
Requirements according to the examination regulations	75% minimum requirements of attendance					
Recommended prerequisites	-					
Module objectives/intended learning outcomes	<p>PLO 7: Able to choose and perform the suitable methods of chemical analysis and operate the chemicals instrument by applying the principles of chemistry occupational safety and health</p> <p>Subject LO:</p> <ol style="list-style-type: none"> 1. Able to adapt registration and laws or compliance laws in functional work areas 2. Able to develop a quality system and process of continuous improvement in the work environment 3. Able to explain the principles of maintaining work safety in the laboratory / work environment 4. Able to carry out work safety in the laboratory / work environment 					
Content	<ol style="list-style-type: none"> 1. Basics of occupational health and safety 2. Occupational health basics 3. Occupational health and safety management systems 4. Basics of occupational health and safety environment 					

	5. Basics of occupational health and safety chemistry 6. Risk management and risk analysis 7. Supervision of health and safety fire prevention		
Study and examination requirements and forms of examination	Subject LO	Examination requirements and forms of examination	Percent
	1	Quizzes, collaborative assignment, midterm exam, final exam	25
	2	Quizzes, collaborative assignment, midterm exam, final exam	25
	3	Quizzes, collaborative assignment, midterm exam, final exam	25
	4	Practical of health and safety documents drafting/videos or posters creating	25
Media employed	Google classroom, youtube, zoom meeting, google form, google doc		
Reading list	<ol style="list-style-type: none"> 1. Alaimo, R.J., 2001, <i>Handbook of Chemical Health and Safety</i>, American Chemical Society 2. Anonim, 2008, <i>Emergency Response Guidebook</i>, secretariat of Transport and communications, U.S. Department of Transportation 3. Anonim, 2005, <i>NIOSH Pocket Guide to Chemical Hazard</i>, Department of Health and Human Services, Central for Disease Control and Prevention, National Institute for Occupational Safety and Health 4. Cahyono, A.B., 2004, <i>Keselamatan Kerja Bahan Kimia di Industri</i>, Gadjah Mada University Press, Yogyakarta 5. CCPS 2010, <i>Guidelines for Vapor Cloud Explosion, Pressure Vessel Burst, BLEVE and Flash Fire Hazards, 2nd Edition</i>, Center for Chemical Process Safety, NY: American Institute of Chemical Engineers 6. CCPS, 2008a, <i>Guidelines for Hazard Evaluation Procedures, Third Edition</i>, Center for Chemical Process Safety, NY: American Institute of Chemical Engineers. 7. CCPS, 2008c, <i>Inherently Safer Chemical Processes: A Life Cycle Approach, 2nd Edition</i>, Center for Chemical Process Safety, NY: American Institute of Chemical Engineers. 8. Cowl, D.A., and Louvar, J.F., 2001. <i>Chemical Process Safety: Fundamentals with Applications, 2nd Ed.</i>, Upper Saddle River, NJ: Prentice Hall. 9. DHS, 2010, "<i>Final Report: Definition for Inherently Safer Technology in Production, Transportation, Storage, and Use.</i>" Prepared by CCPS for U.S. 10. Harrington, J.M. dan Gill, F.S., 1995, <i>Buku Saku Kesehatan Kerja</i>, Department of Homeland Security, Penerbit Buku Kedokteran EGC, Jakarta 11. Johnson et al. 2003. <i>Essential Practices for Managing Chemical Reactivity Hazards</i>, NY: American Institute of Chemical Engineers 12. Man, A.B.C and Gold, D, 1993, <i>Safety and health in the use of chemical at work: a training manual</i>, International Labour Office, Geneva 13. Undang-Undang Keselamatan Kerja No.1 Tahun 1970 		

	<ol style="list-style-type: none">14. Undang-undang No 3 tahun 1969 tentang persetujuan konvensi ILO mengenai Hygiene dalam perniagaan dan kantor15. Peraturan pemerintah No 7 tahun 1973 tentang pengawasan atas peredaran, penyimpanan dan penggunaan pestisida16. Peraturan Pemerintah No 11 tahun 1975 tentang keselamatan kerja radiasi17. Peraturan Menteri Perburuhan Nomor 7 tahun 1964 tentang syarat kesehatan kebersihan serta penerangan dalam tempat kerja18. Permenaker No 3 tahun 1985 tentang keselamatan dan kesehatan kerja pemakaian asbes19. Permenaker No 3 tahun 1986 tentang syarat keselamatan dan kesehatan di tempat kerja yang mengelola pestisida20. Keputusan Menteri Tenaga Kerja R.I. Nomor 187 Tahun 1999 Tentang Pengendalian Bahan Kimia Berbahaya Di Tempat Kerja21. Keputusan Menteri Tenaga Kerja R.I. Nomor 51 tahun 1999 tentang nilai ambang batas faktor fisika di tempat kerja22. Keputusan Menteri Tenaga Kerja R.I. Nomor 187 tahun 1999 tentang pengendalian bahan kimia berbahaya di tempat kerja23. Peraturan Pemerintah Nomor 50 Tahun 2012 Tentang Penerapan Sistem Manajemen Keselamatan dan Kesehatan Kerja24. Peraturan Pemerintah Nomor 26 Tahun 2014 tentang Penyelenggaraan Penilaian Penerapan Sistem Manajemen Keselamatan dan Kesehatan Kerja25. Peraturan Menteri Tenaga Kerja dan Transmigrasi Nomor 4 Tahun 1980 Tentang syarat-syarat Pemasangan dan Pemeliharaan Alat Pemadam Api Ringan (APAR)26. Keputusan Menteri Tenaga Kerja RI No.186 Tahun 1999 Tentang Unit Penanggulangan Kebakaran di Tempat Kerja27. The International Organization for Standardization (ISO) 31000: 2009 Risk Management – Principles and Guidelines
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